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Effect of Debt Financing on Firm Value of Listed Oil and Gas Companies in Nigeria

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Abstract

This study examines the effect of debt financing on the firm value of listed oil and gas companies in Nigeria for the period of ten (10) years, spanning from 2013 to 2022. The population of the study encompasses all the ten (10) oil and gas companies listed on the Nigerian Exchange Group (NGX) as at 31st December 2022 from which seven (7) oil and gas companies were sampled using a purposive sampling technique. For the purpose of this study, data were extracted from published annual audited reports of the sampled oil and gas companies. For data analysis purpose, Multiple regression analysis were employed. firm value was proxies by Market Capitalization (MCAP), while, short-term debt, long-term debt and total debt are the proxies for debt financing. The regression result of the preferred fixed effect model reveals that short-term debt and long-term debt has a significant negative effect on MCAP, while total debt has a significant positive effect on MCAP. whereas, the control variables; firm size has a significant positive effect on MCAP, while firm growth has insignificant negative effect on MCAP. It's concluded that debt finance enhances the value of Nigerian oil and gas companies when it employs total debt financing. Hence, the study recommends that firm managers of listed oil and gas companies in Nigeria to suitably modify the debt mix prior to starting financing programs with total debt. And the study also suggested that future researchers to re-examine the effect of debt financing on the firm value of listed oil and gas companies in Nigeria while utilizing ROA and ROE as proxies for firm value period of 2013-2023.

Keywords: Short-term debt, Long-term debt, Total debt, Firm value, Oil and Gas Companies.

Introduction

Companies in the oil and gas industry are constantly searching for methods to boost earnings and add value. Finding and extracting oil and gas deposits via the conventional method can be costly and take longer to pay off. Therefore, in order to maximize revenues and enhance value, researchers have looked into how to find and take advantage of additional value-creating opportunities (Zafari, 2017). This could involve strategic alliances, cost control, optimization, labeling, and new technology to improve assets and output (Russo & Cesarani, 2017).

Another option is to invest in new energy sources, like green energy, which may be funded with debt and may yield substantial returns over time. Additionally, Bawa et al. (2020) stated that, despite the sector's potential for growth, researchers, policymakers, and investors have been concerned on financing with debt and its consequences, specifically for the share prices of Nigeria's oil and gas companies and the nation's overall development. The optimal debt policy is thought to increase firm value. While studies have shown that, the absence of a robust debt financing policy can adversely affect firm value in Nigeria by resulting in elevated capital costs, heightened financial risk, and potentially insurmountable debt that impede growth and escalate the risk of financial distress or failure (Etim et al, 2022). Thus, the relationship between debt financing and a company's value is well established, its applicability to the oil and gas sector, as suggested by Abor and Karimu (2023), has not yet been thoroughly examined. Given that over 90% of the total export value came from the oil and gas sector (statista, 2022). On this note, the current study aims at a thorough examination of the effect of debt financing on the firm value of listed oil and gas companies in Nigeria. Hence, the main objective of the study is to examine the effect of debt financing on the value of listed oil and gas companies in Nigeria.

Literature Review

Numerous experts have recorded several definitions of the terminology related to debt

finance and firm value. There is disagreement over all of the meanings, much like with the majority of other financial words.

Debt Financing

Aliyu (2019) defined debt finance as form of financing whereby a borrower receives capital for a specific period or in perpetuity, agrees to pay interest, and repays the borrowed amount when the debt mature. This means that, when oil and gas companies finance their operations with debt, being it short term or long term, they have to pay back the debt balance plus interest when it matures. The oil and gas companies usually secured funding in form of debt to finance their operations and improve their value. Kavari and Milner, (2021) argue that, normally, financing of debt involves the repayment of principal and interest according to a schedule set out at the time of borrowing. Noghondari and Noghondari, (2017) believed that, debt financing serves as a crucial financial strategy for businesses aiming to secure external capital by borrowing funds from various sources, including loans, bonds, and debt securities. While, debt financing whether in the form of bonds, loans, or other financial instruments gives businesses the chance to use outside funding to support expansion, boost growth, and make research and development investments without relinquishing ownership and control (Ibrahim & Alagidede, 2017). Based on the aforementioned, each researcher defined the word "debt financing" in their own way. Whereas, the three most crucial components of

their definition are the principle amount, interest rate, and time frame. Looking at one of the metrics used by companies to measure debt financing is debt to assets ratio, which is expressed as total debt against its assets (Giwa-Osagie, 2015). Thus, the current study integrates the metric and assess the effect of debt financing on the firm value of listed oil and gas companies in Nigeria.

Short-term debt

Financial obligations that need to be settled within a year are referred to as short-term debt (Lee, 2021). Short-term debts for a business could include lease payments, short-term bank loans, income taxes due, and wages (Akhilesh, 2022). Some current liabilities for oil and gas firms in Nigeria comprise of dividends payable, contract liabilities, tax liabilities, other trade payables, leasing payables, and short-term financing. According to Akpokerere and Eloho (2023), usually oil and gas companies in Nigeria obtained short-term debt financing from financial institutions and other money lenders to manage working capital, finance operational expenses and others opportunities that requires immediate funding.

The company's decision to finance its operations with shortterm loans may positively or negatively affect its value. Anozie et al (2023) reported that short term debt financing has a significant positive impact on firm value of listed oil and gas companies in Nigeria. Thus, the current study

asses the effect of short-term debt financing on the firm value of listed oil and gas companies in Nigeria.

Long-term debt

According to Orji et al (2021) analysis, long-term debts constitute the liabilities section comprised of obligations incurred to finance the acquisition of non-current assets which are expected to give economic returns for more than a single year. The various forms of bonds such as the government bonds and long-term loans form a major portion of the financing, which could have effect on the firm value of the listed oil and gas companies under study. In most cases, these bonds and loans, in contrast to bank loans, are offered at a higher rate of interest because the risk of default from the firm taking the loan is magnified in such long-term lending (Morellec, 2015). This indicates that when oil and gas businesses utilise debt to finance their activities whether short-term or long term, they must repay the principal amount along with the interest upon maturity. The company's oil and gas statement of financial position shows the following provision as a non-current liable accrument sustaining. Khanna (2020) assertion, provisions are debts that need to be settled by the company at a future date. It is relevant to take this into consideration in so far as judging the company's credit position and capacity to secure funding. As reported by Arikewuyo et al (2019) that, long term debt financing has negative significant effect on the

firm value of listed indigenous oil and gas companies in Nigeria, therefore the company's oil and gas should carefully assess the risks and term of debt and while taken on long term debt in order to maintain a healthy financial position. Consequently, the current study investigates the effect of long-term financing on the firm value of listed oil and gas companies in Nigeria.

Total debt

The term "Total Debt" describes the total of a business's short-term debt and long-term debt. Bank loans, corporate bonds, lease payments, and other financial commitments are all included in this category (Guerard et al, 2020). A firm's debt-to-asset ratio is useful in analysing the company's debts, repayment ability, and future borrowing potential. Investors, on the other hand, analyse the ratio from a different angle, it determines whether or not the firm is solvent and able to pay its obligations and possibly dividends in the future. The mathematical computation of this ratio is $\frac{\text{stragglng debts}}{\text{total assets}} - \frac{\text{current debts}}{\text{total assets}} + \frac{\text{noncurrent debts}}{\text{total assets}}$. This includes all assets that are current and non-current base within the company's statement of financial position. Financing through overall debt financing has proven to enhance corporate value. Orji and Agubata (2021) reported that total debt financing significantly and positively impacts firm value of companies in Nigeria. Thus, the current study examined the effect of total debt financing on the firm value of listed oil and gas companies in Nigeria.

Firm Value

Muhammad et al (2020) defined firm value as the assessment of the business that serves as a benchmark for investors to use when deciding how much to invest. This suggests that a company's firm value can assist lenders in assessing how much debt a company can safely take on in light of its capacity to repay debt. As one of the most significant resources owned by a business, firm value aids in the company's reputation and capital attraction while building strong economies and sustainable growth for the nation (Nhan & Quy, 2016). With good financing policy, company value is expected to appreciate, and it will attract the attention of investor's in the financial market. In creating value, oil and gas companies can leverage debt financing (short-term, or long-term debt) to improve its value. According to Dang et al (2020), view "firm value" as the appreciation of the benefits that an organization may produce now and, in the future, expressed in a form that can be calculated using realistic techniques and pricing models (Venusita & Agustia, 2021).

Differing opinions still exist among scholars pertaining the estimate value. Valuation may be estimated using different measure, in most cases; the result will not be the same as that obtained through another measure. It is only important to choose those metrics that are most appropriate for the set objectives. Study by Daferighe (2014) looked into how quoted Nigerian firms' nonfinancial performance was affected. Tobin's

Q served as a stand-in for firm value and shown a beneficial effect on non-financial performance. Ahmad et al (2019) measured firm value using enterprise value (EV/EBITDA) and found no discernible impact of the ratio of short-term debt to total assets on firm value. The impact of listed food and beverage firms' profitability, capital structure, and investment decisions on the Indonesian stock exchange was examined and supported by Akbar and Rahma (2022). Using price to book value (PBV), the researchers proxies determine the firm's value. Adetunji, Akinyemi, and Rasheed (2016) used earnings per share (EPS) to determine firm value, but Nieh (2008) used both EPS and return on equity (ROE). Each researcher employed a measure that was appropriate for his goals, as can be seen from the above, and the outcomes are varied. The current study used market capitalization MCAP as the measure of firm value to investigate the effect of debt financing on the firm value of listed oil and gas companies in Nigeria, because MCAP measure offers an instantaneous value of a company. Permata and Alkaf (2020) posit that the metric (MCAP) is a crucial element to contemplate for financing decision.

Empirical Review

This study analyses relevant empirical published studies concerning debt financing and its relationship with firm value.

Short-term debt and Firm value

In a study conducted in Malaysia, Zaidi et al (2019) examined the return on assets (ROA) as a managerial measure of business value and assessed the effect of debt financing on the performance consumer products firms sector. According to the investigation, the ratio of short-term debt to total assets, or short-term debt financing, significantly and favorably impacted business value. Having a positive coefficient of 0.04643. The finding indicates that short term debt is a vital source of financing operations among Malaysia firms, Similarly, Abor (2005) reveal short term debt positively and significantly impacted firm value of listed firms in Ghana. This is an indication that short term debt is an important source of financing by Ghanaian firms. The researcher reported that, short-term debt represents 85% of the overall debt financing by the Ghanaian firms. On the other hand, Hassan et al (2014) investigated the effect of short-term debt on the performance of 36 Bangladeshi companies. The study found that short-term debt and return on assets (ROA) were negatively correlated. While, Ahmad et al (2020), examines the effect of debt financing on firm value of listed Nigerian companies using panel data analysis for the period 2008 to 2017. The population of the study consists of 300 firm year observations. The data for this study were sourced from the annual accounts and reports of the companies within the period of the study. Using EV/EBITDA ratio as a proxy for firm

value, the study found an insignificant effect of the short-term debt to total assets ratio on firm value. Muhammad et al (2020), conducted a study on a sample of 14 Nigerian industrial goods companies spanning more than ten years, from 2008 to 2017. Their results show that short-term debt considerably raises the firm's worth (value). The researcher disagree with Ahmad et al (2020), whose reported that, short term debt is key component of financing in Nigerian context, therefore, it is assumed that financing with short term debt will improve value. Even though this current study employed MCAP as metric for firm value, and assesses the effect of short term debt financing on the firm value of listed oil and gas companies in Nigeria.

Long-term-term debt and Firm value

Uremadu and Onyekachi (2018) empirically examined business performance and funding structure in the context of Nigeria from 2002 to 2016. Four businesses from the Nigerian Stock Exchange's (NSE) consumer goods industry were chosen for the study. The OLS regression approach was used to evaluate the data from the companies' annual reports. It was discovered that long-term debt, has a negligible but detrimental effect on business performance. This is an indication that its riskier by companies to fund their operation with long-term debt. Elsewhere, study of Shikumo et al (2020) investigated how long term debt affected the financial development of forty-five non-financial firms that were listed between 2008 and 2017 on

the Nairobi Securities Exchange. Financial growth was quantified by market capitalization and earnings per share. The information shows that there is a positive and significant correlation between long-term debt and financial growth. The current study employed control variables of firm size and firm growth and investigated the effect of long-term debt financing on the firm value of listed oil and gas companies in Nigeria.

Total debt and firm value

A study by Rusnaeni et al. (2022) and Akhtar et al. (2016) reported that firm's worth was positively and significantly correlated with its level of leverage. In contrast study in Nigeria by Echekoba and Ananwude (2016), who examined the impact of financial structure on the performance of 23 consumer goods companies listed on the Nigerian Stock Exchange between 1993 and 2013, overall debt had a negative but negligible effect on company performance. This means that firms in Nigeria should not rely on debt as their main financial option. Thus, the current study assesses the effect of total debt financing on firm value of listed oil and gas companies in Nigeria.

Theoretical Framework

However, previous researchers concentrated on various methods that were integrated into the idea of pecking orders, or signaling theory, both were relevant to the current study.

Pecking order theory

The pecking order theory is about financing choice, wherein internal financing is preferred when available and debt is preferred over equity if external financing is required,” according to Nassr Salah and Ramadan (2018). In fact, managers frequently possess privileged information about the business’s prospects that investors do not. This information asymmetry in the financial markets gives rise to the pecking order theory. Thus according to the theory, debt financing reduces information asymmetric between companies and investors (Mabrouk & Boubaker, 2019). This theory posit that companies prefer internal financing over external financing, and when it became necessary then they prefer debt over issue of new shares for financing. Lemmon and Zender (2010) find evidence supporting the pecking order among a broad sample companies in their study, and present evidence that firms follow a pecking order in incremental financing choice. Consequently, this study integrates the theory and assesses the degree to which the theory clarifies the relationship between debt financing and a company’s worth (value) in the context of oil and gas industry in Nigeria.

Signaling theory

Theoretical presumptions include the idea that a signaling theory serves as a financial window to show an investor that the manager is confident in their future business dealings. According to

Akoto and Gatsi (2010), the signaling theory is essentially predicated on the idea that managers possess greater knowledge than the firm's stakeholders, allowing them to increase the debt portions and thereby raise the firm's value (Akorsu, 2014). Some corporate finance researchers, such Komara et al (2020) and Owere and Malikarjunappa (2021), have recently embraced the phenomenon theory in order to express their reasoning. Thus, going by the theory the managers in the oil and gas industry should increase the debt portion in their financing structure in order to signal a better company value in the eyes of investors. This signal will be seen as positive news that the company is credit worthy and that is raising capital for purposes of growth. Sadiq et al (2023) argued that, these debt signals can be both positive and negative, each have impact on the company value. Therefore, the theory is adopted in this study and assesses the impact of long-term debt financing on the firm value of listed oil and gas companies in Nigeria.

Methodology

This study utilized the correlation research design method, which accurately identifies the degree of relationship between variables, enabling precise explanations and predictions regarding these relationships. As a result, the study made use of secondary data that was previously available in the 2013-2022 annual accounts and reports of the seven (7) sampled out

of ten (10) total population of Nigerian listed oil and gas companies, the companies are; Ardova PLC, Con Oil PLC, Eterna PLC, Japaul Gold Ventures PLC, MRS Oil Nigeria PLC, Seplat Energy PLC, and TotalEnergies Nigeria PLC sourced from the Nigerian Exchange Group 'NGX', (2023). The selection criterion is purposive sampling; the study includes only company that had complete data needed for the study within the period. Hence, in 2013, an independent auditor conducted an audit of all the financial statements from which the data used in this study was taken. Due to the previously mentioned considerations, 2013 was selected as the study base year. However, as of December 31, 2022 is the most current year for which the study data is available on the Nigeria Exchange Group at the time of sourcing the data. Consequently, the study used three sets of variables; dependent, independent, and control variables. Firm value is stand for the dependent variable proxies by market capitalization MCAP. According to Permata and Alkaf (2020), the metric is an important metric to take into account when making a financing decision. The independent variables consist of debt financing options: short-term debt, long-term debt, and total debt, calculated by dividing each by total assets (Ahmad et al, 2019; Ayuba et al,2019 and Kasabeh,2021). While the control variables are: firm size measured as natural logarithm of total assets (Abba & Usman, 2016), and firm growth

is measured as change in the total sales (Budiharjo, 2023).

Thus, the model for the study is written as; FV is a function of debt financing;

$$FV = f(DF)$$

The econometric model will be;

$$MCAP = \beta_0 + \beta_1STD_{it} + \beta_2LTD_{it} + \beta_3TD_{it} + \beta_4FSZ_{it} + \beta_5FGWHT_{it} + e_{it}$$

Where: FV= Firm Value, MCAP= Market Capitalization, STD= Short-term Debt, LT= Term Debt, TD= Total Debt, FSZ= Firm Size, FGT= Firm Growth, e=error term, β_0 =coefficient constant, it=company and time.

Results and Discussions

Regression models were used to display and analyze data taken from the chosen companies' yearly financial accounts.

Table 1 displays the correlation matrix of research variables. Correlation analysis investigates the relationship between independent and dependent variables to determine direction and strength (Senthinathan, 2019).

Table 1. Correlation Matrix of the Variables

Variables	FV	STD	LTD	TD	FSZ	FGT
FV	1.000					
STD	0.018	1.000				
LTD	0.052	0.357*	1.000			
TD	0.101	0.852*	0.164	1.000		
FSZ	0.031	0.504*	0.173	0.408*	1.000	
FGT	0.32	-0.038	0.014	-0.031	0.169	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source; Researcher's Analysis using STATA14 (2023).

From the table 1 above, the association between Firm Value (FV) and Short-Term Debt (STD) is

very weak ($r = 0.018$). This suggests that there is no meaningful linear relationship between the two. The relationship between Long-Term Debt (LTD) and Firm Value (FV) is marginally positive ($r = 0.052$). There is a statistically significant and weakly positive association between Firm Value (FV) and Total Debt (TD) ($r = 0.101$). A very small positive association ($r = 0.031$) between Firm Size (FSZ) and Firm Value (FV). A weakly negative association ($r = -0.032$) between Firm Value (FV) and Firm Growth (FGT). Examining the correlation coefficients between the independent variables (STD, LTD, TD, and the two control variables of FSZ and FGT), there isn't a significant connection higher than 0.7 that would suggest multicollinearity issues as documented by Shrestha (2020). Variance inflation factor (VIF) analysis could be performed to further assess multicollinearity.

Table 2 Variance Inflation Factor

	VIF	1/VIF
STD	53.158	0.019
TD	45.978	0.022
LTD	14.418	0.069
FSZ	1.429	0.700
FGT	1.039	0.963
Mean VIF	23.204	.

Source; Researcher's Analysis using STATA14 (2023).

The result from table 2 above indicates strong multicollinearity issue's because the value of the VIF for both STD "53.158", LTD"45.978" and TD"14.418" are higher than the threshold value of 10 as described by Hair et al (2014). Coupled with the high mean value of 23.204 of VIF. Consequently, the skewness 0.014, kurtosis 0.000

and the chi-squared test probability 0.000, these are indication that the outcome from the test of normality of residual it's not normally distributed as shown in the table 3 below.

Table 3 Test of Normality of Residual

Variable	Obs	Pr(skew)	Pr(kurt)	Adj	Prob>chi2
RESID	77	0.014	0.000	26.750	0.000

Source; Researcher's Analysis using STATA14 (2023).

The robust regression increases the confidence in the reliability of the results in the case of significant observations or potential outliers. In conclusion, the robust regression results support the earlier findings and emphasize the importance of both total and short-term debt in influencing business value of the sampled companies. To strengthen the validity of these findings, the robust regression is used when there are noteworthy observations. Table 4 present the robust regression.

Table 4 Robust Regression

Variable	Coef.	St.Err.	t-value	p-value	[95% Conf
STD	-.005***	.002	-2.81	.006	-.008
LTD	-.009**	.003	-2.56	.013	-.016
TD	.011***	.004	2.95	.004	.004
FSZ	0	.045	-0.00	1	-.089
FGT	0	0	-0.74	.459	-.001
Constant	-.48	.363	-1.32	.19	-1.203

Source; Researcher's Analysis using STATA14 (2023).

Table 5 Hausman Specification Test

	Coef.
Chi-Square Test Value	204.141
P-Value	0.000

Source; Researcher's Analysis using STATA14 (2023).

Based on the significant results of the Hausman test, ($p=0.000$) which shows a systematic difference between the two models. This indicates that the null hypothesis of the random effect as being the preferred model is hereby rejected; hence the fixed effects model is the preferred model. In this case, it offers a more thorough comprehension of the individual-specific effects on firm value of the sampled listed oil and gas companies in Nigeria.

Table 6 Multiple Regression

Variables	Robust Random Model			Fixed Effect Model		
	Coef.	t-v	p-v	Coef.	T	p-v
STD	-	-3.22	.001	-	-2.98	.004
	.024***			.022***		
LTD	-	-3.06	.002	-	-3.06	.003
	.046***			.046***		
TD		3-35	.001			.003
	.054***			.05***	3.06	
FZE	-.026	-0.13	.896	.664	1.44	.153
FGT	-.001	-0.59	.555	-.001	-	.729
				0.35		
Constant	-1.618	-1.02	.308	-6.842	-	.075
No of obs			77	1.81		.77
Mean dependent var						0.025
Overall r-squared			0.025			0.137
			0.143			
Chi-square						
R-square within			11.891			
			0.096			

Source: Researcher's analysis using STATA 14

From the regression result (fixed effect model) in table 6, short-term debt has a coefficient of -0.022 in the fixed effect model mentioned above, indicating that it is frequently linked to a statistically significant drop in company value of the sampled listed oil and gas companies. The importance of this negative effect is supported by the low p-value of 0.004. Thus, the result contradicts Abor (2005) who reported that short-term debt positively and significantly improve

value. A one-unit increase in long-term debt is frequently linked to a statistically significant drop in firm value of the sampled companies for the study, as indicated by the coefficient value of -0.046. And further highlighted by the p-value of 0.003. This finding contradict Shikumo et al. (2020) that there is a positive and significant correlation between long-term debt and firm value. An increase of one unit in total debt is typically linked to a statistically significant increase in firm value of the listed sampled companies, with a coefficient of 0.05 for total debt. Total debt has a positive effect on firm value, as evidenced by the low p-value of 0.003 and the confidence interval (0.017, 0.082). Consequently, the finding also contradicts previous study by Echekeba and Ananwude (2016) that, overall debt had a negative but negligible effect on company value. Firm Size (FSZ), firm Size has a coefficient of 0.664, which is marginally significant ($p = 0.153$). This implies that, even though the significance level is not as high, there is some evidence that firm size may affect firm value in the context of fixed effects. Firm Growth (FGT). The firm growth coefficient, -0.001 at $p = 0.729$, is statistically insignificant. This suggests that, in the setting of fixed effects, there is no clear evidence that firm growth has a major effect on firm value.

Model Fit. A cumulative R-squared of 0.137 indicates that the model can account for 13.7% of the variation in company value. The importance of short-term, long-term, and total debt on

business value of listed oil and gas companies in Nigeria is supported by both fixed effects and random effects models. Additional insights are provided by the fixed effects model, which indicates that firm size may have a significant impact on firm value of listed sampled oil and gas companies in Nigeria.

Conclusions and Recommendations

From 2013 to 2022, this study examined how debt financing affects the company value of Nigerian oil and gas businesses that are listed, with total debt, long-term debt, and short-term debt acting as independent variables, market capitalization is the dependent variable. Furthermore, the study only looks at the Nigerian oil and gas industry, and make use of purposive sampling method. there are other sampling methods, and industries where debt financing can have a big impact on their value as well. Given these limitations, this study suggested that more research be done in some of these area's in the future; These are "effects of debt financing on consumer products companies that are listed in Nigeria Exchange Group., Debt financings based on the business value of Nigerian listed oil and gas companies and utilized ROA and ROE as measure of firm value spanning from 2013-2023".

Align with the study findings; the following conclusions have been derived.

1. Nigerian listed oil and gas companies' value is significantly impacted negatively

by short-term debt. This finding contradict earlier study by Abor (2005) who reported that short-term debt positively and significantly improve value.

2. The firm value of listed oil and gas companies in Nigeria is negatively and significantly affected by long-term debt. This is an indication that the idea of pecking order theory should adopted by the oil and gas companies in their financing decision, that the retained earnings should utilize first, follow by debt and equity issuance as a last resort in order to mitigate the negative effect of external funding (long-term debt financing).
3. Moreover, it's revealed that the value of the sampled listed oil and gas companies is significantly positively impacted by total debt. This finding contradict previous study by Echekeba and Ananwude (2016) that, overall debt had a negative but negligible effect on company performance.
4. Firm size is marginally significantly impacted the firm value of sampled listed oil and gas companies in Nigeria. This finding contradict Ahmad et al (2020) that, firm size has a negative effect on firm value of listed companies in Nigeria.
5. However, the value of sampled listed oil and gas companies is marginally

impacted negatively by firm growth. Contrary to the study of Ahmad (2020) that firm growth does not affect firm value of Nigerian listed companies.

Therefore, the following recommendations were offered;

1. Nigerian oil and gas companies' management should minimize or refrain from using short-term debt to fund their operations in order to improve the company value and attract more investment into their companies.
2. The expenses and terms of long-term debt should be carefully evaluated by Nigerian oil and gas business management to avoid taking on debt that will not add value to the companies and consequently tarnish the image of the companies in the eyes of investors.
3. Thus, going by total debt financing, overall debt increases company value. However, oil and gas firms must suitably modify the debt mix prior to starting a financing programs with overall debt. Because long-term debt and short-term debt had a detrimental effect on the sampled companies'.
4. Since firm size significantly increases the company's value, management should make sure that more financing is done on the assets and put in place a robust assets integrity management, this will

incentivize investment and make it a favorable factor for financing facilities.

5. Firm growth is crucial for investors; as higher sales growth leads to higher company value. Management should increase turnover through advertising, discount policies, and strong credit terms in order to improve the sales and enhance value.

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